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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,833	01/29/2002	Volkhard Maess	P01,0202	6275

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EXAMINER

FEGGINS, KRISTAL J

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/868,833

Applicant(s)

MAESS ET AL.

Examin r

K. Feggins

Art Unit

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mw

-- The MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre Amdt filed 6/21/01t.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15,16 and 20 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 11-14, 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11 & 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiseki Yamaguchi (EP 660589 A2, IDS) in view of .

Chiseki Yamaguchi discloses the following claimed limitations:

- * regarding claim 11, a method for operating a printer or copier device (Abstract)
- * acquiring at least one optical property of a print image carrier to be printed with a print image with a sensor (col 5, lines 22-43, figs 1,3);
- * setting at least one printing parameter dependent on a sensor output signal of the sensor (col 5, lines 22-43, figs 1,3);
- * printing the print image carrier in a printing event utilizing the at least one print parameter that has been set step (col 5, lines 22-43, line 53-col 5, line 9, figs 1,3);
- * given a black-and-white printing with gray levels/density gradation, acquiring a gray scale value of the print image carrier with assistance of a brightness sensor/optical sensor/ (col 5, lines 33-44, col 6, lines 7-33, figs 1, 3 & 4);
- * setting at least one printing parameter that influences generation of the gray levels dependent on an output signal of the brightness sensor/optical sensor/ (col 5, lines 33-44, col 6, lines 7-33, figs 1, 3 & 4);

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* utilizing a multi-level character generator/optical system, 18/ when exposing a photoconductor in an electrographic printer or copier device (col 3, lines 40-50, col 4, lines 21-26, col 5, lines line 20-col 6, line 32, figs 1-4);

* setting illumination energies of the character generator allocated to specific light coding values dependent on the brightness sensor output signal (col 3, lines 40-50, col 4, lines 21-26, col 5, lines line 20-col 6, line 32, figs 1-4);

* regarding claim 17, wherein said method is implemented in an electrophotographic printer (col 1, lines 5-7).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiseki Yamaguchi (EP 660589 A2, IDS) in view of Mizutani (US 5774146, IDS).

Chiseki Yamaguchi discloses all of the claimed limitations except for the following:

* regarding claim 12, given color printing, acquiring a color locus of the print image carrier with assistance of a color sensor;

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* determining rated color densities of colors to be printed with predetermined color transformation relationships that allocate rated color densities for color separations employed in the printing to the acquired color loci;

* empirically determining transformation relationships before the printing event; and storing the transformation relationships as at least one of analytical equations and a table in a memory of the printer or copier device.

Mizutani discloses the following claimed limitations:

* given color printing, acquiring a color locus of the print image carrier with assistance of a color sensor (col 7, line 1-col 8, line 57) for the purpose of providing improved print outputs of images.

* determining rated color densities of colors to be printed with predetermined color transformation relationships that allocate rated color densities for color separations employed in the printing to the acquired color loci (col 7, line 1-col 8, line 57) for the purpose of providing of an apparatus with high contrast of image.

* empirically determining transformation relationships before the printing event; and storing the transformation relationships as at least one of analytical equations/calculations/ an a table/plurality of values/ in a memory of the printer or copier device (col 7, line 1-col 8, line 57) for the purpose of providing a high color reproducibility of images onto any kind of print papers but still does not load a large burden on a user.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize given color printing, acquiring a color locus of the

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print image carrier with assistance of a color sensor; determining rated color densities of colors to be printed with predetermined color transformation relationships that allocate rated color densities for color separations employed in the printing to the acquired color loci; empirically determining transformation relationships before the printing event; and storing the transformation relationships as at least one of analytical equations and a table in a memory of the printer or copier device, taught by Mizutani into Chiseki Yamaguchi for the purposes of providing improved print outputs of images, providing of an apparatus with high contrast of image and providing a high color reproducibility of images onto any kind of print papers but still does not load a large burden on a user.

5. Claims 13, 14, 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiseki Yamaguchi (EP 660589 A2, IDS) in view of Schleusener et al. (US 5,767,888, IDS).

Chiseki Yamaguchi discloses the following claimed limitations:

- * regarding claim 13, acquiring at least one mechanical property of a print image carrier to be printed with a print image with a sensor (col 5, lines 24-56, figs 1,3, 4);

- * setting at least one printing parameter dependent on an output signal of the sensor (col 5, lines 24-56, col 6, lines 3-33, figs 1,3, 4);

- * printing the print image carrier in a printing event utilizing the at least one print parameter that has been set (col 5, lines 24-56, col 6, lines 3-33, figs 1,3, 4);

- * acquiring roughness of a surface of the print image carrier with a roughness sensor/paper detection sensor/(col 5, lines 24-56, figs 1,3, 4);

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* setting toner quantity to be applied onto the print image carrier dependent on an output signal of the roughness sensor/paper detection sensor/ (col 5, lines 24-56, col 6, lines 3-33, figs 1,3, 4);

* regarding claim 14, further comprising the step of modifying the printing parameters such that a size of picture elements of the print image on the print image carrier remains approximately the same (col 5, lines 24-56, col 6, lines 3-33, figs 1,3, 4);

Chiseki Yamaguchi does not disclose the following claimed limitation:

*regarding claim 13, a charge potential of a photoconductor collaborating in the printing event and an auxiliary potential of an allocated development station being simultaneously modified.

* regarding claim18, wherein said printing parameters are at least one of an illumination energy of an illumination device for exposing a light sensitive element and an auxiliary potential in a developer unit for the application of toner particles and a charge potential of the light-sensitive element.

* regarding claim 19, wherein gray transformation relationships that indicate the illumination energies allocated to the light-coding values dependent on the gray scale value are utilized, said gray transformation relationships belonging to specific sensor output signals.

Schleusener et al. disclose the following claimed limitations:

*regarding claim 13, a charge potential of a photoconductor collaborating in the printing event and an auxiliary potential of an allocated development station being simultaneously modified (col 6, lines 40-45) for the purpose of enabling a printing quality.

* regarding claim 18, wherein said printing parameters are at least one of an illumination energy of an illumination device for exposing a light sensitive element and an auxiliary potential in a developer unit for the application of toner particles and a charge potential of the light-sensitive element (col 6, lines 40-67, col 7, lines 1-15) for the purpose of providing high quality printing with respect of a representation of half-tones.

* regarding claim 19, wherein gray transformation relationships that indicate the illumination energies allocated to the light-coding values dependent on the gray scale value are utilized, said gray transformation relationships belonging to specific sensor output signals (col 6, lines 40-67, col 7, lines 3-67, col 8, lines 1-45) for the purpose of providing high quality with respect to characters and printed lines.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize a charge potential of a photoconductor collaborating in the printing event and an auxiliary potential of an allocated development station being simultaneously modified; printing parameters that are at least one of an illumination energy of an illumination device for exposing a light sensitive element and

an auxiliary potential in a developer unit for the application of toner particles and a charge potential of the light-sensitive element; and gray transformation relationships that indicate the illumination energies allocated to the light-coding values dependent on the gray scale value are utilized, said gray transformation relationships belonging to specific sensor output signals, taught by Schleusener et al. into Chiseki Yamaguchi for the purposes of enabling a printing quality, providing high quality printing with respect of a representation of half-tones and providing high quality with respect to characters and printed lines.

Allowable Subject Matter

6. Claims 15-16 & 20 are allowed.

The following is an examiner's statement of reasons for allowance: The primary reason for the allowance of claims 15-16 is the inclusion of the method step for operating a printer or copiers that includes prescribing printing parameters that determine one of the a raster tonal value and a gray scale value and dimensions of fine print details dependent on the acquired light scatter, printing a raster toner mark onto the print image carrier and acquiring light that is one of reflected and scattered back in a region of the raster toner mark with the optical sensor. It is these method steps found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable.

The primary reason for the allowance of claims 20 is the inclusion of the limitations of a printer or copier that includes a raster toner mark is printed onto the print image carrier so that light reflected the raster toner mark is acquired with the optical

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sensor, printing parameters that determine at least one of raster tonal value and gray scale value and dimensions of fine print details being prescribed dependent on acquired light scatter. It is these limitations found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication With The USPTO

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 703-306-4548. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, B. Fuller can be reached on 703-308-0079. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


K. Feggins
December 8, 2003